
	Title SPILLS EMERGENCY STANDARD OPERATIONAL PROCEDURE	Institut de recherche Centre universitaire de santé McGill  Research Institute McGill University Health Centre	
		Version 1.1	Last Update 28-01-2020
SOP ID# MEAK-1005	Field of Application Generic Equipment – Environmental Health & Safety – BSL2	Written by S. AUDUSSEAU	Approved by

1. PURPOSE

This document provides guidelines and standard emergency procedures in response to spills. The procedure is applicable to all common rooms mentioned below. This Standard Operational Procedure (SOP) can be used as a reference for spills in other locations of the laboratories. Room: E03.4027.1, E03.4037, E034047, E03.4435, E03.4073, E03.2074, E03.2425, E03.2431, E03.2054, E03.2048, E03.2044, E03.2038, E03.2028

2. SCOPE

The present document is intended for all staff and students working or using the equipment within the Meakins-Christie Laboratories (RESP program).

3. EMERGENCY SITUATION

All spills, incident, exposures and accidents, no matter how minor, must be promptly reported to the lab supervisor or to the lab coordinator (Severine Audusseau) and to RI Environmental Health and Safety.

In the event of a serious emergency (major spill, injury, etc.) dial 55555:



Centre universitaire de santé McGill / McGill University Health Centre

24/7

POUR ACTIVER UN ALERTE DU CODE D'URGENCE
TO ACTIVATE AN EMERGENCY CODE ALERT

↓

Composer le / Dial

55555




LIGNE D'URGENCE CUSM / MUHC EMERGENCY LINE

Spécifier à l'agente du Centre d'appels l'information suivant...
Specify the following information to the Call Centre agent..

CODE + SITE + BLOC + LOCATION + NOM + Ext.
CODE + SITE + BLOCK + LOCATION + NAME + Ext.

RED	Fire
BLUE	Medical Emergency
BROWN	Dangerous Material Spill

Complete a Work-related incident/accident and occupational disease report form and forward it to the RI-MUHC Environmental Health & Safety Division (RIEHS) at ri.ehs@muhc.mcgill.ca. The form can be found in the First Aid kit or on the RI-MUHC portal/Resources/Health&Safety/Forms.

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4. MATERIAL FOR EMERGENCY SPILLS

Disinfecting and neutralizing solutions as well as absorbent material are available in several locations within the laboratories. Ask the lab coordinator for help as needed: Séverine Audusseau (EM2.2221, ext. 76335)

Commercial bleach, rolls of absorbent paper and disinfectants (Lysol wipes and 70% ethanol) are available in the common cell culture room E03.4047 or in the flow cytometry room E03.2054. Garbage bags for biohazardous waste are available in the sink cabinet in room E03.4047.




For major spills, kits are available in room E03.2150, E03.2144, E03.2124 and E03.4361.

5. GENERAL PROCEDURE FOR SPILLS

1. Ask for help from colleague nearby, lab supervisor or lab coordinator.
2. Assist injured or contaminated persons (if applicable).
3. Remove contaminated PPE without further contaminating yourself (i.e. remove gloves lastly)
4. Limit access to affected area and close doors.
5. Allow 30 minutes for aerosols to settle.
6. Use appropriate personal protective equipment.
7. Place absorbent papers over the spill area.
8. Pour freshly prepared 2% bleach on the absorbent paper, starting at the perimeter and working towards the center of the spill.
9. Let sit for 30 minutes.
10. Use forceps, brush and/or dustpan to collect disposal contaminated materials and PPE in leak-proof bag and/or sharp container.
11. For items that cannot be autoclaved, disinfect the surfaces with 2% bleach.
12. Disinfect the affected area a second time. Do not forget to decontaminate all areas including walls, cabinets, floor in proximity to the spill.
13. Report the spill to the lab supervisor, lab coordinator and to RI Environmental Health and Safety.

6. SPILL INSIDE A BIOLOGICAL SAFETY CABINET (BSC)

1. Ask for help
2. Assist injured or contaminated person (if applicable)
3. Leave cabinet running for 10 minutes to allow aerosols to be filtered before cleaning the spill.
4. Prior to removing your hands from the BSC, remove contaminated or potentially contaminated gloves (outer set) and place them into biohazardous waste bag inside the BSC.
5. If the laboratory coat is contaminated, put it inside a biohazard bag for autoclaving.
6. Wash hands thoroughly with soap. Put on two new pairs of gloves and a new solid front gown.
7. Place absorbent papers over the spill area.
8. Pour freshly prepared 2% bleach on the absorbent paper, starting at the perimeter and working towards the center of the spill. Let sit for 30 minutes.

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9. If spilled material goes through the work surface into the catch tray, pour 70% ethanol into the catch tray and let sit for 30 minutes. Lift the work surface and use long tongs to absorb the spill with paper towels and transfer the absorbent paper to a doubled biohazard bag.
10. Place autoclavable contaminated reusable items (surgical tools, dispenser and pipettors) inside an autoclave bag. Close the bag, disinfect the surface of the bag with 1% bleach and autoclave.
11. For items that cannot be autoclaved, disinfect the surfaces with 2% bleach.
12. Decontaminate the surfaces the BSC with 2% bleach and rinse well with 70% ethanol to prevent corrosion.
13. Decontaminate the surfaces of all spill cleanup materials using 2% bleach.
14. Replace gloves and gown.
15. Report the spill to the lab supervisor, lab coordinator and to RI Environmental Health and Safety.

7. SPILL INSIDE A CENTRIFUGE (including ultracentrifuge and microcentrifuge)

To prevent contamination and spills inside the centrifuges, it is recommended to always use aerosol tight caps where available. It is **mandatory** to use aerosol tight caps when centrifuging air born pathogens or when manipulating samples of unknown biosafety level.

When a tube breaks during centrifugation, liquids will be confined to the inside of the rotor. The decontamination procedures to follow are:

1. Transfer the contaminated rotor inside the BSC.
2. Discard contaminated liquids into a collection container holding a **final** concentration of 2% bleach.
3. Using forceps, remove tubes and tube fragments and submerge them in a 2% bleach solution for 10 minutes
4. Soak the rotor in 70% ethanol for 20 minutes.
5. Allow a contact time of 30 minutes for the disinfectants to work.
6. Wipe down the inside of the centrifuge with 70% ethanol.
7. Soak the rotor in 70% ethanol for 20 minutes. Wash with a mild detergent, rinse with water and allow it to dry.
8. Dispose of contaminated waste as recommended by the RI Environmental Health and Safety.

8. REFERENCES

- Government of Canada, Canadian Biosafety Handbook, second edition, Chapter 17 – Emergency Response Plan; 17.3 Spill Response.
- RI-MUHC Environmental Health and Safety, Guidelines and Protocols on Emergency Procedures – Spills
- McGill University Health Center, “Code Brown Hazardous Material Spill – Internal, Alert, Intervention and recovery Protocol”